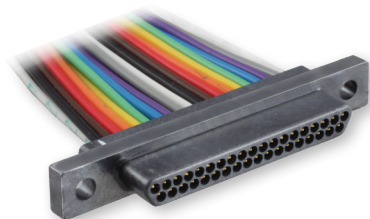


MWDL Low Profile Plastic Shell Micro-D Insulated Wire Termination



Micro-D Double
and Triple Row



MWDL connectors are supplied with stranded mil spec hookup wire. Contacts are crimped to wire and potted with epoxy. Pin contacts are gold-plated high performance TwistPin type and are recessed into insulator to prevent damage. Socket contacts are gold plated, machined copper alloy. Glass-filled high temperature thermoplastic connector body. M22759/11 standard wire, or M22959/33 lightweight, high strength space grade wire. Meets performance requirements of MIL-DTL-83513, Class P. Available with 9 to 51 contacts. 3 A., 600 Vac, -55°C to +150°C.

How To Order Stranded Wire Connector

Sample Part Number	MWDL	-37	P	-6	K	5	-18	M
Series	MWDL - Low Profile Plastic Shell Micro-D							
Contact Layout	9, 15, 21, 25, 31, 37, 51 (See Table II)							
Contact Type	P - Pin Contacts S - Socket Contacts							
Wire Gage (AWG)	4 - #24 6 - #26 8 - #28 0 - #30							
Wire Type	K - Standard Wire Extruded PTFE per M22759/11, Silver-Plated Conductors (#30 AWG not available) J - Space Grade Wire High Strength, Lightweight, Crosslinked Modified ETFE per M22759/33, Silver-Plated Conductors							
Wire Color Code	1 - White 5 - Color-Coded per MIL-STD-681. 7 - 10 Color Repeat Wires are solid color per MIL-STD-681 color code system.							
Wire Length (Inches)	18 = 18 inches							
Mounting Hardware	B, M, M1, S, S1, P (See Table I)							

E

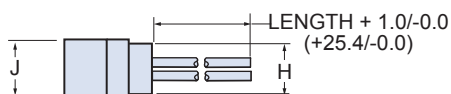
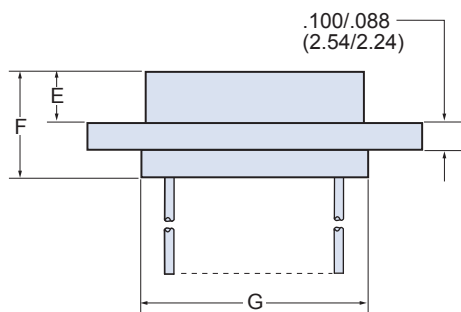
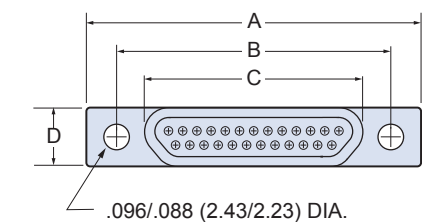
Table I: Mounting Hardware

B	P	M	M1	S	S1
Thru-Hole	Jackpost #2-56	Hex Head Jackscrew #2-56	Hex Head Jackscrew, Extended #2-56	Slot Head Jackscrew #2-56	Slot Head Jackscrew, Extended #2-56

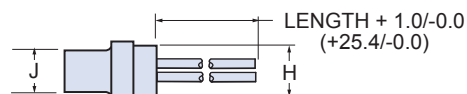


MWDL Low Profile Plastic Shell Micro-D Insulated Wire Termination

Table II: Dimensions



SOCKET CONNECTOR



PIN CONNECTOR

Layout	A Max.		B		C Max.		D Max.		E Max.		F Max.		G Max.		H Max.		J Max.	
	In.	mm.	In. ± .003	mm. ± 0.08	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.
9P	.788	20.02	.565	14.35	.292	7.42	.218	5.54	.202	5.13	.395	10.03	.408	10.36	.173	4.39	.134	3.40
9S	.788	20.02	.565	14.35	.380	9.65	.218	5.54	.185	4.70	.375	9.53	.408	10.36	.173	4.39	.218	5.54
15P	.938	23.83	.715	18.16	.442	11.23	.218	5.54	.202	5.13	.395	10.03	.558	14.17	.173	4.39	.134	3.40
15S	.938	23.83	.715	18.16	.530	13.46	.218	5.54	.185	4.70	.375	9.53	.558	14.17	.173	4.39	.218	5.64
21P	1.088	27.64	.865	21.97	.592	15.04	.218	5.54	.202	5.13	.395	10.03	.708	17.98	.173	4.39	.134	3.40
21S	1.080	27.64	.865	21.97	.680	17.27	.218	5.54	.185	4.70	.375	9.53	.708	17.98	.173	4.39	.218	5.64
25P	1.188	30.18	.965	24.51	.692	17.58	.218	5.54	.202	5.13	.395	10.03	.808	20.52	.173	4.39	.134	3.40
25S	1.185	30.18	.965	24.51	.780	19.81	.218	5.54	.185	4.70	.375	9.53	.808	20.52	.173	4.39	.218	5.64
31P	1.338	33.99	1.115	28.32	.842	21.39	.218	5.54	.202	5.13	.395	10.03	.958	24.33	.173	4.39	.134	3.40
31S	1.338	33.99	1.115	28.32	.930	23.62	.218	5.54	.185	4.70	.375	9.53	.958	24.33	.173	4.39	.218	5.64
37P	1.488	37.80	1.265	32.13	.992	25.20	.218	5.54	.202	5.13	.395	10.03	1.108	28.14	.173	4.39	.134	3.40
37S	1.488	37.80	1.265	32.13	1.080	27.43	.218	5.54	.185	4.70	.375	9.53	1.108	28.14	.173	4.39	.218	5.64
51P	1.438	36.53	1.215	30.86	.942	23.93	.260	6.60	.202	5.13	.395	10.03	1.058	26.87	.220	5.59	.177	4.50
51S	1.438	36.53	1.215	30.86	1.030	26.16	.260	6.60	.185	4.70	.375	9.53	1.058	26.87	.220	5.59	.260	6.60

Performance Specifications

Current Rating	3 AMP
DWV	600 VAC Sea level
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 Milliohms Maximum
Operating Temperature	-55° C. to +150° C.
Shock, Vibration	50 g., 20g.
Mating Force	(10 Ounces) X (# of Contacts)

Materials and Finishes

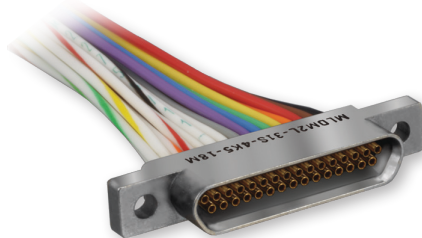
Insulator	Liquid Crystal Polymer (LCP)/ Polyphenylene Sulfide (PPS)
Pin Contact	Beryllium Copper, Gold Over Nickel Plating
Socket Contact	Copper Alloy, Gold Over Nickel Plating
Hardware	300 Series Stainless Steel
Encapsulant	Epoxy



Low Profile Metal and Plastic Shell Micro-D Connector Specifications

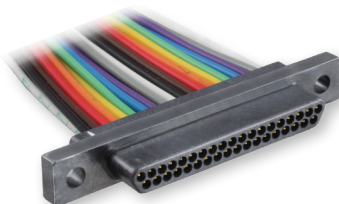
MLDM

Low Profile Metal Shell Connector



MWDL

Low Profile All-Plastic Connector



- Metal Shell or One-Piece Plastic
- High Reliability TwistPin Contact System
- .050" Pitch Contact Spacing
- Solder Cup, Pre-Wired or PCB
- 3 Amps, +150°C, 600 Vac

E

Low Profile Metal Shell and Plastic Shell Micro-D's Save Space Compared to MWDM Metal Shell Connectors

Low profile MLDM metal shell and MWDL plastic shell connectors are intended for high reliability board-to-wire I/O and wire-to-wire applications. Gold-plated TwistPin contacts provide excellent performance when subjected to high levels of shock and vibration. Plastic and metal versions are intermateable. Flange height is reduced by 33% compared to MWDM standard Micro-D connectors.

NOTE: Not intermatable with Standard MWDM Interface

SIZE COMPARISON

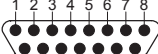
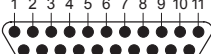
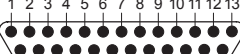
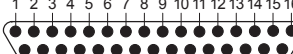
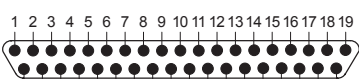
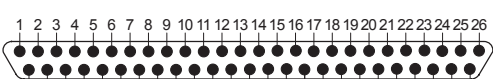
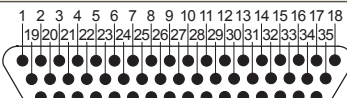


MLDM 51 Pin Low Profile



MWDM 51 Pin Standard Height

Low Profile MLDM and MWDL Contact Arrangements

 1 2 3 4 5 6 7 8 9 9	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 15	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 21	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 37	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51-2	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51		

Mating face of pin connector. Socket connector contact numbers are reversed.

Materials and Finishes	
Contacts	Copper alloy, 50 µinch gold over nickel
Insulator, MWDL Body	Liquid crystal polymer (LCP or PPS)
MLDM Shell	Aluminum alloy
Mounting Hardware	Stainless Steel
Potting Compound	Epoxy
Insulated Wire	Per MIL-W-22759/11 and /33
Solid Wire, PC Tails	Per A-A-59551, gold plated or tinned

Specifications	
Current Rating	3 Amps
Contact Resistance	8 milliohms maximum
Dielectric Withstanding Voltage	600 Vac sea level
Insulation Resistance	5000 megohms minimum
Operating Temperature	-55°C. to +150°C.
Shock	50 g.
Vibration	20 g.